

Welcome to DialogClassic Web(tm)

Dialog level 04.12.02D
Last logoff: 30aug04 16:29:32
Logon file001 13sep04 10:08:26

*** ANNOUNCEMENT ***

--Connect Time joins DialUnits as pricing options on Dialog.
See HELP CONNECT for information.

--SourceOne patents are now delivered to your email inbox
as PDF replacing TIFF delivery. See HELP SOURCE1 for more
information.

--Important Notice to Freelance Authors--
See HELP FREELANCE for more information

NEW FILES RELEASED

***F-D-C Gold/Silver Sheet (File 184)

***BIOSIS Toxicology (File 157)

***IPA Toxicology (File 153)

UPDATING RESUMED

RELOADED

***Toxfile (File 156)

REMOVED

>>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
>>> of new databases, price changes, etc. <<<

KWIC is set to 50.

HILIGHT set on as ' '

* * * *

File 1:ERIC 1966-2004/Jul 21
(c) format only 2004 The Dialog Corporation

Set	Items	Description
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Cost is in DialUnits

?

B 155, 5, 73

13sep04 10:08:41 User259876 Session D668.1

\$0.73 0.210 DialUnits File1

\$0.73 Estimated cost File1

\$0.06 INTERNET

\$0.79 Estimated cost this search

\$0.79 Estimated total session cost 0.210 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 155:MEDLINE(R) 1951-2004/Sep W2

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***File 155: Medline has been reloaded. Accession numbers**
have changed. Please see HELP NEWS 154 for details.

File 5:Biosis Previews(R) 1969-2004/Sep W1

(c) 2004 BIOSIS

File 73:EMBASE 1974-2004/Sep W1

(c) 2004 Elsevier Science B.V.

Set	Items	Description
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S (MESENCHYMAL (W) (STEM OR PROGENITOR)) AND BRACHYURY
45779 MESENCHYMAL

351424 STEM
 69548 PROGENITOR
 3598 MESENCHYMAL(W) (STEM OR PROGENITOR)
 1238 BRACHYURY

S1 8 (MESENCHYMAL (W) (STEM OR PROGENITOR)) AND BRACHYURY

?

RD

...completed examining records

S2 4 RD (unique items)

?

T S2/3,K/ALL

2/3,K/1 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.

15905138 PMID: 14871240

Tomorrow's skeleton staff: mesenchymal stem cells and the repair of bone and cartilage.

Otto W R; Rao J

Histopathology Unit, Cancer Research UK, London Research Institute, London, UK. bill.otto@cancer.org.uk

Cell proliferation (England) Feb 2004, 37 (1) p97-110, ISSN 0960-7722 Journal Code: 9105195

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Tomorrow's skeleton staff: mesenchymal stem cells and the repair of bone and cartilage.

Stem cells are regenerating medicine. Advances in stem cell biology, and bone marrow-derived **mesenchymal stem cells** in particular, are demonstrating that many clinical options once thought to be science fiction may be attainable as fact. The extra- and intra-cellular...

... and HGF, as well as the complementary roles of Wnt and Dickkopf-1 in stem cell proliferation are evident. The ability to direct multi-lineage **mesenchymal stem cell (MSC)** potential towards an osteogenic phenotype by stimulation with Menin and Shh are important, as are the modulatory roles of Notch-1 and PPARGamma. Control of chondrocytic differentiation is effected by interplay of **Brachyury**, BMP-4 and TGFbeta3. Smads 1, 4 and 5 also play a role in these phenotypic expressions. The ability to culture MSC has led to...

2/3,K/2 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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11690653 PMID: 11865033

The T-box transcription factor Brachyury mediates cartilage development in mesenchymal stem cell line C3H10T1/2.

Hoffmann Andrea; Czichos Stefan; Kaps Christian; Bachner Dietmar; Mayer Hubert; Kurkalli Basan Gowda; Zilberman Yoram; Turgeman Gadi; Pelled Gadi; Gross Gerhard; Gazit Dan

Osteo-Angiogenesis Group, Gesellschaft fur Biotechnologische Forschung (GBF), Mascheroder Weg 1, 38124 Braunschweig, Germany.

Journal of cell science (England) Feb 15 2002, 115 (Pt 4) p769-81, ISSN 0021-9533 Journal Code: 0052457

Erratum in J Cell Sci 2002 Jun 15;115(Pt 12) 2613

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

The T-box transcription factor Brachyury mediates cartilage development in mesenchymal stem cell line C3H10T1/2.

The BMP2-dependent onset of osteo/chondrogenic differentiation in the acknowledged pluripotent murine **mesenchymal stem cell line** (C3H10T1/2) is accompanied by the immediate upregulation of Fibroblast Growth Factor Receptor 3 (FGFR3) and a delayed response by FGFR2. Forced expression...

... chondrogenic lineage in this cell line. Screening for transcription factors exhibiting a chondrogenic capacity in C3H10T1/2 identified that the T-box containing transcription factor **Brachyury** is upregulated by FGFR3-mediated signaling. Forced expression of **Brachyury** in C3H10T1/2 was sufficient for differentiation into the chondrogenic lineage in vitro and in vivo after transplantation into muscle. A dominant-negative variant of

Brachyury, consisting of its DNA-binding domain (T-box), interferes with BMP2-mediated cartilage formation. These studies indicate that BMP-initiated FGF-signaling induces a novel type of transcription factor for the onset of chondrogenesis in a **mesenchymal stem cell line**. A potential role for this T-box factor in skeletogenesis is further delineated from its expression profile in various skeletal elements such as

Chemical Name: Bone Morphogenetic Proteins; **Brachyury** protein; Proto-Oncogene Proteins; Receptors, Fibroblast Growth Factor; Recombinant Proteins; T-Box Domain Proteins; Transcription Factors; bone morphogenetic protein 2; fibroblast growth factor 3; Fibroblast...

2/3,K/3 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2004 BIOSIS. All rts. reserv.

0013906085 BIOSIS NO.: 200200499596

Correction of Previews 200200220743. The T-box transcription factor Brachyury mediates cartilage development in mesenchymal stem cell line C3H10T1/2. Correction of author names.)

AUTHOR: Hoffmann Andrea; Czichos Stefan; Kaps Christian; Baechner Dietmar; Mayer Hubert; Kurkalli Basan Gowda; Zilberman Yoram; Turgeman Gadi; Pelled Gadi; Gross Gerhard (Reprint); Gazit Dan

AUTHOR ADDRESS: Osteo-Angiogenesis Group, Gesellschaft fuer Biotechnologische Forschung (GBF), Mascheroder Weg 1, 38124, Braunschweig, Germany**Germany

JOURNAL: Journal of Cell Science 115 (12): p2613 June 15, 2002 2002

MEDIUM: print

ISSN: 0021-9533

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

Correction of Previews 200200220743. The T-box transcription factor Brachyury mediates cartilage development in mesenchymal stem cell line C3H10T1/2. Correction of author names.)

DESCRIPTORS:

...ORGANISMS: **mesenchymal stem cell line**

GENE NAME: murine **Brachyury** gene (Muridae...

2/3,K/4 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE

(c) 2004 Elsevier Science B.V. All rts. reserv.

11685495 EMBASE No: 2002258466

Erratum: The T-box transcription factor Brachyury mediates cartilage development in mesenchymal stem cell line C3H10T1/2 (Journal of Cell Science vol. 115 (769-781))

Hoffmann A.; Czichos S.; Kaps C.; Bachner D.; Mayer H.; Kurakalli B.G.;
Zilberman Y.; Turgeman G.; Pelled G.; Gross G.; Gazit D.
G. Gross, Osteo-Angiogenesis Group, GBF, Mascheroder Weg 1, 38124
Braunschweig Germany
AUTHOR EMAIL: ggr@gbf.de
Journal of Cell Science (J. CELL SCI.) (United Kingdom) 15 JUN 2002,
115/12 (2613)
CODEN: JNCSA ISSN: 0021-9533
DOCUMENT TYPE: Journal ; Erratum
LANGUAGE: ENGLISH

**Erratum: The T-box transcription factor Brachyury mediates cartilage
development in mesenchymal stem cell line C3H10T1/2 (Journal of Cell
Science vol. 115 (769-781))**

?
Set Items Description
S1 8 (MESENCHYMAL (W) (STEM OR PROGENITOR)) AND BRACHYURY
S2 4 RD (unique items)
?
S (EMBRYO (S) BRACHYURY)
401559 EMBRYO
1238 BRACHYURY
S3 236 (EMBRYO (S) BRACHYURY)
?
S S3 (S) OVEREXPRESSION
236 S3
127008 OVEREXPRESSION
S4 22 S3 (S) OVEREXPRESSION
?
RD
...completed examining records
S5 8 RD (unique items)
?
T S5/3,K/ALL

5/3,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.

16062317 PMID: 15030762
**Nodal and BMP2/4 signaling organizes the oral-aboral axis of the sea
urchin embryo.**
Duboc Veronique; Rottinger Eric; Besnardeau Lydia; Lepage Thierry
UMR 7009 Centre National de la Recherche Scientifique, Universite Pierre
et Marie Curie, Observatoire Oceanologique, 06230 Villefranche-sur-Mer,
France.
Developmental cell (United States) Mar 2004, 6 (3) p397-410, ISSN
1534-5807 Journal Code: 101120028
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

In the sea urchin **embryo**, the oral-aboral axis is specified after
fertilization by mechanisms that are largely unknown. We report that early
sea urchin embryos express Nodal and Antivin in the presumptive oral
ectoderm and demonstrate that these genes control formation of the
oral-aboral axis. **Overexpression** of nodal converted the whole ectoderm
into oral ectoderm and induced ectopic expression of the orally expressed
genes goosecoid, **brachyury**, BMP2/4, and antivin. Conversely, when the
function of Nodal was blocked, by injection of an antisense Morpholino
oligonucleotide or by injection of antivin mRNA...

...axis in a largely non-cell-autonomous manner. These observations suggest

that the mechanisms responsible for patterning the oral-aboral axis of the sea urchin **embryo** may share similarities with mechanisms that pattern the dorsoventral axis of other deuterostomes.

5/3,K/2 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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14404838 PMID: 10400677

SIP1, a novel zinc finger/homeodomain repressor, interacts with Smad proteins and binds to 5'-CACCT sequences in candidate target genes.

Verschuere K; Remacle J E; Collart C; Kraft H; Baker B S; Tylzanowski P; Nelles L; Wuytens G; Su M T; Bodmer R; Smith J C; Huylebroeck D

Department of Cell Growth, Differentiation and Development (VIB-07), Flanders Interuniversity Institute for Biotechnology (VIB), Herestraat49, B-3000 Leuven, Belgium.

Journal of biological chemistry (UNITED STATES) Jul 16 1999, 274 (29) p20489-98, ISSN 0021-9258 Journal Code: 2985121R

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

... deltaEF1/Zfh-1 family of two-handed zinc finger/homeodomain proteins. Like deltaEF1, SIP1 binds to 5'-CACCT sequences in different promoters, including the *Xenopus* **brachyury** promoter. **Overexpression** of either full-length SIP1 or its C-terminal zinc finger cluster, which bind to the Xbra2 promoter in vitro, prevented expression of the endogenous...

... investigate the mechanisms by which transforming growth factor beta members exert their effects on expression of target genes in responsive cells and in the vertebrate **embryo**.

5/3,K/3 (Item 3 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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13348694 PMID: 9022053

Inhibition of eFGF expression in *Xenopus* embryos by antisense mRNA.

Lombardo A; Slack J M

Developmental Biology Programme, School of Biology and Biochemistry, University of Bath, United Kingdom.

Developmental dynamics - an official publication of the American Association of Anatomists (UNITED STATES) Feb 1997, 208 (2) p162-9,

ISSN 1058-8388 Journal Code: 9201927

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

We studied the effects in *Xenopus* embryos of **overexpression** of antisense RNA complementary to the messenger RNA of eFGF. We show that the expression of sense RNA can be severely depressed in the presence...

... a depression of translation of the residual message. The diminution of inducing activity of eFGF, measured in animal cap assays either by activation of the **Brachyury** gene or by morphology, parallels the reduction of translation. Endogenous eFGF expression is reduced to a similar extent, again by a combination of mRNA destruction and inhibition of translation. This shows that the **overexpression** of antisense RNA is, contrary to general opinion, a potentially useful technique for studying gene function in *Xenopus* embryos. However, in the case of eFGF...

... no overall phenotypic effect on whole embryos. This is probably because

of the presence of several other FGFs with overlapping expression domains in the early **embryo**.

5/3,K/4 (Item 4 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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12904235 PMID: 8570208

Withdrawal of differentiation inhibitory activity/leukemia inhibitory factor up-regulates D-type cyclins and cyclin-dependent kinase inhibitors in mouse embryonic stem cells.

Savatier P; Lapillonne H; van Grunsven L A; Rudkin B B; Samarut J

Laboratoire de Biologie Moléculaire et Cellulaire-UMR 49 CNRS-LA INRA, Ecole Normale Supérieure de Lyon, France.

Oncogene (ENGLAND) Jan 18 1996, 12 (2) p309-22, ISSN 0950-9232

Journal Code: 8711562

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

... up-regulation of all. Up-regulation of D cyclins occurs through an increase in the steady-state levels of mRNA, concomitantly with the activation of **Brachyury** and Goosecoid, two early markers of mesoderm differentiation. Similarly, cells from the epiblast of the early postimplantation mouse **embryo** do not express any cyclin D/CDK4 complexes. These are progressively upregulated at gastrulation and early organogenesis. DIA/LIF-stimulated ES cells are not growth-arrested by **overexpression** of p16Ink4a, a specific inhibitor of CDK4 and CDK6. We propose that the G1/S transition may be regulated by a minimal mechanism in mouse...

5/3,K/5 (Item 5 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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11695379 PMID: 11869292

Xenopus Brachyury regulates mesodermal expression of Zic3, a gene controlling left-right asymmetry.

Kitaguchi Tetsuya; Mizugishi Kiyomi; Hatayama Minoru; Aruga Jun; Mikoshiba Katsuhiko

Laboratory for Developmental Neurobiology, Riken Brain Science Institute, Wako-shi, Saitama 351-0198, Japan.

Development, growth & differentiation (Japan) Feb 2002, 44 (1) p55-61, ISSN 0012-1592 Journal Code: 0356504

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

The **Brachyury** gene has a critical role in the formation of posterior mesoderm and notochord in vertebrate development. A recent study showed that **Brachyury** is also responsible for the formation of the left-right (L-R) axis in mouse and zebrafish. However, the role of **Brachyury** in L-R axis specification is still elusive. Here, it is demonstrated that

Brachyury is involved in L-R specification of the *Xenopus laevis* **embryo** and regulates expression of Zic3, which controls the L-R specification process. **Overexpression** of *Xenopus Brachyury* (Xbra) and dominant-negative type Xbra (Xbra-EnR) altered the orientation of heart and gut looping, concomitant with disturbed laterality of nodal-related 1 (Xnrl ...

... left lateral plate mesoderm. Furthermore, activation of inducible type

Xbra (Xbra-GR) induces Zic3 expression within 20 min. These results suggest that a role of **Brachyury** in L-R specification may be the direct regulation of Zic3 expression.

5/3,K/6 (Item 6 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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10660283 PMID: 10769246

Xwnt11 is a target of Xenopus Brachyury: regulation of gastrulation movements via Dishevelled, but not through the canonical Wnt pathway.

Tada M; Smith J C

Division of Developmental Biology, National Institute for Medical Research, The Ridgeway, Mill Hill, London, NW7 1AA, UK.

Development (Cambridge, England) (ENGLAND) May 2000, 127 (10)

p2227-38, ISSN 0950-1991 Journal Code: 8701744

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Gastrulation in the amphibian **embryo** is driven by cells of the mesoderm. One of the genes that confers mesodermal identity in *Xenopus* is **Brachyury** (Xbra), which is required for normal gastrulation movements and ultimately for posterior mesoderm and notochord differentiation in the development of all vertebrates. Xbra is a...

...interference with transcription activation leads to an inhibition of morphogenetic movements during gastrulation. To understand this process, we have screened for downstream target genes of **Brachyury** (Tada, M., Casey, E., Fairclough, L. and Smith, J. C. (1998) Development 125, 3997-4006). This approach has now allowed us to isolate Xwnt11, whose...

...induced in an immediate-early fashion by Xbra and its expression in vivo is abolished by a dominant-interfering form of Xbra, Xbra-En(R).

Overexpression of a dominant-negative form of Xwnt11, like **overexpression** of Xbra-En(R), inhibits convergent extension movements. This inhibition can be rescued by Dsh, a component of the Wnt signalling pathway and also by...

5/3,K/7 (Item 7 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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10628534 PMID: 10734108

The VT+ and VT- isoforms of the fibroblast growth factor receptor type 1 are differentially expressed in the presumptive mesoderm of *Xenopus* embryos and differ in their ability to mediate mesoderm formation.

Paterno G D; Ryan P J; Kao K R; Gillespie L L

Terry Fox Cancer Research Laboratories, Division of Basic Medical Sciences, Faculty of Medicine, Memorial University of Newfoundland, St. John's, Newfoundland A1B 3V6, Canada.

Journal of biological chemistry (UNITED STATES) Mar 31 2000, 275 (13)

p9581-6, ISSN 0021-9258 Journal Code: 2985121R

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

...zone are induced to form mesoderm during blastula stages. RNase protection analysis of blastula stage embryos revealed that the VT+ isoform was expressed throughout the **embryo** but that the VT- isoform was expressed almost exclusively in the marginal zone. The ratio of VT+:VT-

transcripts in the marginal zone indicated that...

...a dramatic increase in VT- expression levels was detected. This increase could be mimicked in part by treatment of animal cap explants with FGF-2.

Overexpression of the VT+ isoform in *Xenopus* embryos resulted in development of tadpoles with severe reductions in trunk and tail structures, while embryos overexpressing the VT...

... reach 50% induction in VT+-overexpressing animal cap explants compared with those overexpressing the VT- isoform. Furthermore, little or no expression of the panmesodermal marker **Brachyury** (Xbra) was detected in VT+-overexpressing embryos, while VT--overexpressing embryos showed normal staining. This demonstrates that VT+ **overexpression** had a negative effect on mesoderm formation in vivo. These data are consistent with a model in which mesoderm formation in vivo is regulated, at...

5/3,K/8 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0013543873 BIOSIS NO.: 200200137384

Brachyury homolog (HpTa) is involved in the formation of archenteron and secondary mesenchyme cell differentiation in the sea urchin embryo

AUTHOR: Mitsunaga-Nakatsubo Keiko; Harada Yoshito; Satoh Nori; Shimada Hiraku; Akasaka Koji (Reprint)

AUTHOR ADDRESS: Laboratory of Molecular Genetics, Department of Mathematical and Life Sciences, Graduate School of Science, Hiroshima University, Kagamiyama, Higashi-Hiroshima, 739-8526, Japan**Japan

JOURNAL: Zoology (Jena) 104 (2): p99-102 2001 2001

MEDIUM: print

ISSN: 0944-2006

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Sea urchin **Brachyury** homolog (HpTa) is expressed exclusively in the vegetal plate and secondary mesenchyme cells in the embryos of sea urchin *Hemicentrotus pulcherrimus*. In order to gain insights into the role of HpTa during sea urchin development, we designed experiments to perturb the embryo by inducing ectopic **overexpression** of HpTa by injecting fertilized eggs with HpTa mRNA. The **overexpression** of HpTa resulted in suppression of the formation of vegetal plate and secondary mesenchyme cells. We assume that the interaction of HpTa with unknown factors...

...amount of HpTa proteins produced from injected HpTa mRNA depletes the co-factors. In consequence, the target genes of HpTa would be repressed by the **overexpression** of HpTa. We suggest that HpTa is involved in the formation of the vegetal plate and the differentiation of secondary mesenchyme cells.

?

Set	Items	Description
S1	8	(MESENCHYMAL (W) (STEM OR PROGENITOR)) AND BRACHYURY
S2	4	RD (unique items)
S3	236	(EMBRYO (S) BRACHYURY)
S4	22	S3 (S) OVEREXPRESSION
S5	8	RD (unique items)
?		
S		(ECTOPIC (W) EXPRESSION) (S) BRACHYURY
	81961	ECTOPIC
	2070795	EXPRESSION
	1238	BRACHYURY
S6	40	(ECTOPIC (W) EXPRESSION) (S) BRACHYURY

?

S S6 AND (MESENCHYMAL (W) (STEM OR PROGENITOR))
 40 S6
 45779 MESENCHYMAL
 351424 STEM
 69548 PROGENITOR
 3598 MESENCHYMAL(W) (STEM OR PROGENITOR)
 S7 0 S6 AND (MESENCHYMAL (W) (STEM OR PROGENITOR))

?

S S6 AND (EMBRYO)
 40 S6
 401559 EMBRYO
 S8 21 S6 AND (EMBRYO)

?

RD
 ...completed examining records
 S9 12 RD (unique items)

?

T S9/3,K/ALL

9/3,K/1 (Item 1 from file: 155)
 DIALOG(R)File 155:MEDLINE(R)
 (c) format only 2004 The Dialog Corp. All rts. reserv.

16062317 PMID: 15030762

Nodal and BMP2/4 signaling organizes the oral-aboral axis of the sea urchin embryo .

Duboc Veronique; Rottinger Eric; Besnardeau Lydia; Lepage Thierry
 UMR 7009 Centre National de la Recherche Scientifique, Universite Pierre et Marie Curie, Observatoire Oceanologique, 06230 Villefranche-sur-Mer, France.

Developmental cell (United States) Mar 2004, 6 (3) p397-410, ISSN 1534-5807 Journal Code: 101120028

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Nodal and BMP2/4 signaling organizes the oral-aboral axis of the sea urchin embryo .

In the sea urchin **embryo** , the oral-aboral axis is specified after fertilization by mechanisms that are largely unknown. We report that early sea urchin embryos express Nodal and Antivin...

... of the oral-aboral axis. Overexpression of nodal converted the whole ectoderm into oral ectoderm and induced ectopic expression of the orally expressed genes goosecoid, **brachyury** , BMP2/4, and antivin. Conversely, when the function of Nodal was blocked, by injection of an antisense Morpholino oligonucleotide or by injection of antivin mRNA...

...axis in a largely non-cell-autonomous manner. These observations suggest that the mechanisms responsible for patterning the oral-aboral axis of the sea urchin **embryo** may share similarities with mechanisms that pattern the dorsoventral axis of other deuterostomes.

Descriptors: Body Patterning--physiology--PH; *Bone Morphogenetic Proteins--physiology--PH; * **Embryo** , Nonmammalian--physiology--PH; *Signal Transduction--physiology--PH; *Transforming Growth Factor beta--physiology--PH; Acebutolol--metabolism--ME; Amphibia; Animals; Body Patterning--genetics--GE; Bone Morphogenetic Proteins--genetics--GE; Cell Differentiation; Chlorides--toxicity--TO; Ectoderm--cytology--CY; Ectoderm--physiology--PH; **Embryo** , Nonmammalian--drug effects--DE; Embryonic Induction; Endoderm--cytology--CY; Endoderm--physiology--PH; Gene Expression Regulation, Developmental; Homeodomain Proteins--genetics--GE; In Situ Hybridization; Lithium--pharmacology...

9/3,K/2 (Item 2 from file: 155)
DIALOG(R) File 155:MEDLINE(R)
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10833951 PMID: 10960780

The expression of nonchordate deuterostome Brachyury genes in the ascidian Ciona embryo can promote the differentiation of extra notochord cells.

Satoh G; Harada Y; Satoh N
Department of Zoology, Graduate School of Science, Kyoto University,
Sakyo-ku, 606-8502, Kyoto, Japan. gouki@ascidian.zool.kyoto-u.ac.jp
Mechanisms of development (IRELAND) Sep 2000, 96 (2) p155-63, ISSN
0925-4773 Journal Code: 9101218
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

The expression of nonchordate deuterostome Brachyury genes in the ascidian Ciona embryo can promote the differentiation of extra notochord cells.

... RT-PCR analyses indicated that Ci-Bra was not upregulated by the product of Am(Bb)Bra2, PfBra or SpBra. In situ hybridization showed no **ectopic expression** of Ci-Bra in the manipulated embryos. These results suggest that the introduction of nonchordate deuterostome **Brachyury** genes into ascidian embryos can trigger the differentiation of notochord cells in ascidian embryos. Evolutionary alteration in the genetic circuitry, especially downstream of this transcription...

9/3,K/3 (Item 3 from file: 155)
DIALOG(R) File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.

10561282 PMID: 10662647

Mesendoderm and left-right brain, heart and gut development are differentially regulated by pitx2 isoforms.

Essner J J; Branford W W; Zhang J; Yost H J
Huntsman Cancer Institute, Center for Children, University of Utah, Salt Lake City, UT 84112, USA.
Development (Cambridge, England) (ENGLAND) Mar 2000, 127 (5)
p1081-93, ISSN 0950-1991 Journal Code: 8701744
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

... and can be induced by ectopic goosecoid expression. Maintenance of pitx2c midline expression is dependent on cyclops (nodal) and schmalspur, but not no tail (brachyury). **Ectopic expression** of pitx2 isoforms results in distinct morphological and molecular phenotypes, indicating that pitx2a and pitx2c have divergent regulatory functions. Both isoforms downregulate goosecoid on the...

; Amino Acid Sequence; Animals; **Embryo**, Nonmammalian--physiology--PH; Evolution, Molecular; Molecular Sequence Data; Promoter Regions (Genetics); Protein Isoforms--genetics--GE; Protein Isoforms--metabolism--ME; Sequence Alignment; Sequence Homology, Amino Acid...

9/3,K/4 (Item 1 from file: 5)
DIALOG(R) File 5:Biosis Previews(R)
(c) 2004 BIOSIS. All rts. reserv.

0012267377 BIOSIS NO.: 199900527037

Evolutionary alterations of the minimal promoter for notochord-specific

Brachyury expression in ascidian embryos

AUTHOR: Takahashi Hiroki (Reprint); Mitani Yasuo; Satoh Gouki; Satoh Nori
AUTHOR ADDRESS: Department of Zoology, Graduate School of Science, Kyoto
University, Sakyo-ku, Kyoto, 606-8502, Japan**Japan
JOURNAL: Development (Cambridge) 126 (17): p3725-3734 Sept., 1999 1999
MEDIUM: print
ISSN: 0950-1991
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: 289)As-T/lacZ diminished the reporter gene expression. In addition, coinjection of p(-289)As-T/lacZ and synthetic As-T mRNA resulted in **ectopic expression** of lacZ in non-notochord cells, suggesting that the T-binding motif is responsible for autoactivation of the gene. These findings revealed striking differences between...

DESCRIPTORS:

...ORGANISMS: **embryo**

9/3,K/5 (Item 2 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)
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0012014872 BIOSIS NO.: 199900274532

An ascidian T-Box gene As-T2 is related to the Tbx6 subfamily and is associated with embryonic muscle cell differentiation

AUTHOR: Mitani Yasuo; Takahashi Hiroki; Satoh Nori (Reprint)
AUTHOR ADDRESS: Department of Zoology, Graduate School of Science, Kyoto
University, Sakyo-ku, Kyoto, 606-8502, Japan**Japan
JOURNAL: Developmental Dynamics 215 (1): p62-68 May, 1999 1999
MEDIUM: print
ISSN: 1058-8388
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: and/or overexpression of this gene by injecting synthetic mRNA into fertilized eggs. The results showed that the injection of As-T2 mRNA induced an **ectopic expression** of muscle-specific myosin heavy-chain gene and actin gene, especially in presumptive epidermal cells. This ectopic muscle-specific expression was accompanied by the partial suppression of an epidermis-specific gene expression. The overexpression of As-T2, however, rarely affected the expression of As-T (**Brachyury**) and genes that are expressed in the tailbud.

DESCRIPTORS:

...ORGANISMS: **embryo** ;

9/3,K/6 (Item 3 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)
(c) 2004 BIOSIS. All rts. reserv.

0011990230 BIOSIS NO.: 199900249890

Goosecoid and Mix.1 repress Brachyury expression and are required for head formation in Xenopus

AUTHOR: Latinkic B V; Smith J C (Reprint)
AUTHOR ADDRESS: Division of Developmental Biology, National Institute for
Medical Research, The Ridgeway, Mill Hill, London, NW7 1AA, UK**UK
JOURNAL: Development (Cambridge) 126 (8): p1769-1779 April, 1999 1999
MEDIUM: print
ISSN: 0950-1991
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

...ABSTRACT: and then in the formation of the mesendoderm. Consistent with the model outlined above, inhibition of the function of either gene product leads to transient **ectopic expression** of Xbra. Such embryos later develop dorsoanterior defects and, in the case of interference with Mix.1, additional defects in heart and gut formation. Goosecoid...

DESCRIPTORS:

...ORGANISMS: **embryo**

9/3,K/7 (Item 4 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2004 BIOSIS. All rts. reserv.

0010772733 BIOSIS NO.: 199799406793

Expression cloning of a Xenopus T-related gene (Xombi) involved in mesodermal patterning and blastopore lip formation

AUTHOR: Lustig K D; Kroll K L; Sun E E; Kirschner M W

AUTHOR ADDRESS: Dep. Cell Biol., Harvard Med. Sch., Boston, MA 02115, USA**
USA

JOURNAL: Development (Cambridge) 122 (12): p4001-4012 1996 1996

ISSN: 0950-1991

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

...ABSTRACT: blastopore lip formation at the border between the mesoderm and endoderm. Transcripts encoding brachyury, Xwnt8 and goosecoid colocalize with Xombi transcripts within the marginal zone; **ectopic expression** of Xombi induces expression of all three mesodermal genes. In ectodermal explants, Xombi expression is induced by the secreted mesoderm inducers activinA, activinB, Xnrl and eFGF, and by **brachyury**, another Xenopus T-box containing gene. The time course and location of Xombi expression, its biological activities and the partial dependence of Xombi expression and...

DESCRIPTORS:

MISCELLANEOUS TERMS: ... **EMBRYO** ;

9/3,K/8 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE

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10622158 EMBASE No: 2000084937

XTIF2, a Xenopus homologue of the human transcription intermediary factor, is required for a nuclear receptor pathway that also interacts with CBP to suppress Brachyury and XMyoD

De la Calle-Mustienes E.; Gomez-Skarmeta J.L.

J.L. Gomez-Skarmeta, Ctro. Biol. Molecular Severo Ochoa, Consejo Sup. de Invest. Cientificas, Universidad Autonoma de Madrid, Cantoblanco, 28049 Madrid Spain

AUTHOR EMAIL: jlgomez@cbm.uam.es

Mechanisms of Development (MECH. DEV.) (Ireland) 2000, 91/1-2
(119-129)

CODEN: MEDVE ISSN: 0925-4773

PUBLISHER ITEM IDENTIFIER: S0925477399002804

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 44

...negative constructs, one encompassing the NR-binding domain and the other the CBP interacting region of XTIF2. Overexpression of the XTIF2 dominant negative mRNAs causes **ectopic expression** of Xenopus **Brachyury** (Xbra) and MyoD in all tissue layers. Moreover, **ectopic expression** of the dominant negative construct that contains the CBP-binding region

produces strong phenotypes at hatching stage such as loss of head structures, shortened trunks...

MEDICAL DESCRIPTORS:

Xenopus; blastula; gastrula; notochord; gene overexpression; phenotype; gene function; mesoderm; endoderm; signal transduction; nonhuman; animal experiment; controlled study; animal tissue; **embryo** ; article; priority journal

9/3,K/9 (Item 2 from file: 73)

DIALOG(R) File 73:EMBASE

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07400965 EMBASE No: 1998313164

Deregulated expression of the retinoid X receptor alpha prevents muscle differentiation in P19 embryonal carcinoma cells

Pratt M.A.C.; Crippen C.; Hubbard K.; Menard M.

M.A.C. Pratt, Department of Pharmacology, University of Ottawa, 451 Smyth Road, Ottawa, Ont. K1H 8M5 Canada

AUTHOR EMAIL: cpratt@uottawa.ca

Cell Growth and Differentiation (CELL GROWTH DIFFER.) (United States)

1998, 9/9 (713-722)

CODEN: CGDIE ISSN: 1044-9523

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 50

...elevated in DMSO-treated P19(RXR-alpha) and in P19 cells treated simultaneously with retinoic acid and DMSO. The mRNA for the mesoderm inducer protein **Brachyury** T was also deregulated in P19(RXR-alpha) cells and D3 cells compared with that of wild-type P19 cells. Together, these results show that expression of the RXR- alpha mRNA and protein in P19 cells is tightly regulated during the mesodermal/muscle differentiation of P19 cells, and that **ectopic expression** of the RXR-alpha protein prevents differentiation associated with increased cell death, prolonged expression of **Brachyury** T, and constitutive expression of Id1.

MEDICAL DESCRIPTORS:

cell differentiation; gene expression regulation; protein expression; cell level; mesoderm; revertant; nonhuman; mouse; animal cell; **embryo** ; article ; priority journal

9/3,K/10 (Item 3 from file: 73)

DIALOG(R) File 73:EMBASE

(c) 2004 Elsevier Science B.V. All rts. reserv.

07387654 EMBASE No: 1998289720

Conservation of the developmental role of Brachyury in notochord formation in a Urochordate, the ascidian Halocynthia roretzi

Yasuo H.; Satoh N.

N. Satoh, Department of Zoology, Graduate School of Science, Kyoto University, Sakyo-ku, Kyoto 606-8502 Japan

AUTHOR EMAIL: satoh@ascidian.zool.kyoto-u.ac.jp

Developmental Biology (DEV. BIOL.) (United States) 15 AUG 1998, 200/2 (158-170)

CODEN: DEBIA ISSN: 0012-1606

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 38

The notochord is one of the characteristic features of the phylum Chordata. The vertebrate **Brachyury** gene is known to be essential for the terminal differentiation of chordamesoderm into notochord. In the ascidian, which belongs to the subphylum Urochordata, differentiation of...

...induced at the late phase of the 32-cell stage through cellular interaction with adjacent endoderm cells as well as neighboring notochord cells. The ascidian **Brachyury** gene (As-T) is expressed exclusively in the notochord-lineage blastomeres, and the timing of gene expression at the 64-cell stage precisely coincides with...

...without the induction, of notochord-specific features in the A-line presumptive notochord blastomeres. We also show that overexpression of As-T RNA leads to **ectopic expression** of notochord-specific features in non-notochord lineages, including those of spinal cord and endoderm. These results strongly suggest that the developmental role of the **Brachyury** is conserved throughout chordates in notochord formation.

MEDICAL DESCRIPTORS:

cell differentiation; ascidiacea; blastomere; endoderm; **embryo** development; protein induction; nonhuman; animal cell; **embryo** ; article; priority journal

9/3,K/11 (Item 4 from file: 73)

DIALOG(R)File 73:EMBASE

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06032415 EMBASE No: 1995062653

The eed mutation disrupts anterior mesoderm production in mice

Faust C.; Schumacher A.; Holdener B.; Magnuson T.

Department of Genetics, Case Western Reserve University, Cleveland, OH

44106-4955 United States

Development (DEVELOPMENT) (United Kingdom) 1995, 121/2 (273-285)

CODEN: DEVPE ISSN: 0950-1991

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

...specified appropriately. Despite the absence of a morphologically distinct node, sparse axial mesoderm cells in eed mutant embryos are specified, as reflected by expression of **Brachyury** (T), Sonic hedgehog, and Tcf3b/HNF-3beta, and definitive endoderm is produced. Specification of these cell types is also independent of correct expression of nodal, Fgf4, and gsc. Finally, T and Evx1 display **ectopic expression** in cells not normally fated to ingress through the primitive streak. The data presented are discussed in terms of mechanisms for establishment of the eed...

MEDICAL DESCRIPTORS:

animal tissue; article; cell type; controlled study; ectoderm; **embryo** ; **embryo development** ; **embryo** growth; endoderm; gastrulation; gene expression; in situ hybridization; mouse; nonhuman; notochord; phenotype; priority journal; somite

9/3,K/12 (Item 5 from file: 73)

DIALOG(R)File 73:EMBASE

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05464667 EMBASE No: 1993232766

The Brachyury gene encodes a novel DNA binding protein

Kispert A.; Herrmann B.G.

Max-Planck-Ins Entwicklungsbiologie, Abt Biochemie, Spemannstr 35/II, 7400 Tübingen Germany

EMBO Journal (EMBO J.) (United Kingdom) 1993, 12/8 (3211-3220)

CODEN: EMJOD ISSN: 0261-4189

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Brachyury (T) mutant embryos are deficient in mesoderm formation and do not complete axial development. The notochord is most strongly affected. The T gene is expressed transiently in primitive streak-derived nascent and migrating mesoderm cells and continuously in the notochord. **Ectopic**

expression of T protein in the animal cap of Xenopus embryos results in ectopic mesoderm formation. The T protein is located in the nucleus. These and...

MEDICAL DESCRIPTORS:

amino terminal sequence; article; binding site; consensus sequence; embryo development; gene expression; mesoderm; nonhuman; notochord; priority journal; protein localization; sequence homology; transcription regulation; xenopus; zebra fish
?

Set	Items	Description
S1	8	(MESENCHYMAL (W) (STEM OR PROGENITOR)) AND BRACHYURY
S2	4	RD (unique items)
S3	236	(EMBRYO (S) BRACHYURY)
S4	22	S3 (S) OVEREXPRESSION
S5	8	RD (unique items)
S6	40	(ECTOPIC (W) EXPRESSION) (S) BRACHYURY
S7	0	S6 AND (MESENCHYMAL (W) (STEM OR PROGENITOR))
S8	21	S6 AND (EMBRYO)
S9	12	RD (unique items)
?		

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